

Access DB# 28813

## SEARCH REQUEST FORM

Scientific and Technical Information Center

MEJ

Requester's Full Name: James D. Wilson Examiner #:            Date: 11/7/00  
Art Unit: 1623 Phone Number 308-4624 Serial Number: 09/484,484  
Mail Box and Bldg/Room Location: 0M1 7-E-12 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Solution Phase Biopolymer Synthesis  
Inventors (please provide full names): Hubert Koster; Ralph Worl

Earliest Priority Filing Date: This application is a CON of 09/067,337 04/27/98

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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NOV - 8 2000

SUB-TECH/CHEM. DIVISION  
(STIC)

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Searcher: JOHN DANTZMANSearcher Phone #:           Searcher Location:           Date Searcher Picked Up: 11-30-00Date Completed: 12-4-00Searcher Prep & Review Time: 30Clerical Prep Time:           Online Time: 40

## Type of Search

NA Sequence (#)           AA Sequence (#)           Structure (#)           Bibliographic ✓Litigation           Fulltext           Patent Family           Other           

## Vendors and cost where applicable

STN ✓Dialog           Questel/Orbit           Dr.Link           Lexis/Nexis           Sequence Systems           WWW/Internet           Other (specify)

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1. (Amended) A liquid phase carrier (LPC) of formula  $Sp(X^1)_n$ , wherein:  
 Sp is a polyvalent group that has more than two points of attachment, n is the number of points of attachment in Sp and  $X^1$  is a reactive group for synthesis  
 [synthesis] of biopolymers.

33. A method of solution phase biopolymer synthesis, comprising  
 20 the steps of:

(a) reacting an LPC of formula  $Sp(X^1)_n$  with a first monomer  $N^1$ ;  
 (b) separating and purifying the product of step (a) to afford a compound of formula  $Sp(X^1-N^1)_n$ ;  
 (c) reacting the product of step (b) with a second monomer  $N^2$ , a  
 25 dimer  $N^2-N^3$  or a trimer  $N^2-N^3-N^4$ ; and

(d) repeating steps (b) and (c) to produce an LPC-bound biopolymer of formula  $Sp(X^1-N^1-N^2-...-N^m)_n$ , where m is 3 to 100, wherein:

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 30 and  $X^1$  is a reactive group for biopolymer synthesis;  
 $N^1, N^2, N^3...N^m$  are biopolymer monomers; and

the dimers and trimers comprise the monomers.

48. A method of solution phase biopolymer synthesis, comprising  
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 the protocol used in steps (c) and (d) to synthesize the biopolymer, preferably the oligonucleotide, is the phosphoramidite protocol.

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Searcher Prep & Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

Other \_\_\_\_\_

Other (specify) \_\_\_\_\_

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